

TA-VE110

SERVICE MANUAL

AEP Model
UK Model



SPECIFICATIONS

Amplifier section

Power output	(DIN 1 kHz)
Surround mode	
Front:	25 W+25 W/8 ohms
Center:	25 W/8 ohms
	(only in the PRO LOGIC and C, STUDIO modes)
Rear:	10 W+10 W/8 ohms

Frequency response	VIDEO 1+2, TV, AUX: 20 Hz-20 kHz ± 2 dB
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Audio section

Inputs	Sensitivity	Impedance
VIDEO1, VIDEO2, TV, AUX	150mV	50kilohms

Outputs

BASS BOOST	+7 dB at 60 Hz
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General

Power requirements	220-230 V AC, 50/60 Hz
Power consumption	110 W
Dimensions	430 × 95 × 280 mm (17 × 3 3/4 × 11 1/8 inches)
Mass (Approx.)	4.6 kg (10 lb 2 oz)

Supplied accessories	Remote controller (remote) (1) Size AA (R6) batteries (2) Scart adaptor (1)
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Design and specifications are subject to change without notice.

STEREO AV AMPLIFIER



MICROFILM

SONY®

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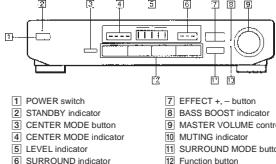
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SAFETY-RELATED COMPONENT WARNING!!

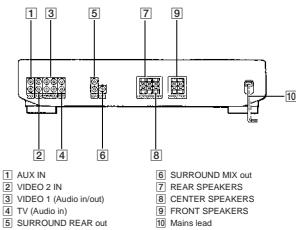
COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

**SECTION 1
GENERAL**

Front panel

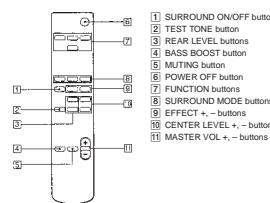


Rear panel



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Remote commander (RM-UE110)


**SECTION 2
IC PIN FUNCTION**

IC501 u PD78001BGC-627-AB8

Pin No.	Pin Name	I/O	Pin Description
1	POWRY	O	Power relay ON/OFF control pin.
2	SPRY	O	Speaker relay ON/OFF control pin.
3	SUR.RY	O	Surround speaker relay ON/OFF control pin.
4	VOL_UP	O	Volume up signal output.
5	VOL_DWN	O	Volume down signal output.
6	MUTE	O	Mute ON/OFF control pin.
7	TV SCART	O	TV ON signal output.
8	NC	—	Not used.
9	VSS	—	Power supply GND pin. (Ground)
10	NC	—	Not used.
11	DBFB	O	DBFB ON/OFF control pin.
12	MUTE	O	Mute LED ON/OFF control pin.
13	LEV1	O	—
14	LEV2	O	—
15	LEV3	O	Level LED ON/OFF control pin.
16	LEV4	O	—
17	LEV5	O	—
18	SIMULATED	O	—
19	THBTR	O	Surround LED ON/OFF control pin.
20	PRO LOGIC	O	—
21	VIDEO1	O	Video 1 LED ON/OFF control pin.
22	TV	O	TV LED ON/OFF control pin.
23	VIDEO2	O	Video 2 LED ON/OFF control pin.
24	VSS	—	Ground
25	AUXLINE	O	AUXLINE LED ON/OFF control pin.
26	STANDBY	O	Power LED ON/OFF control pin.
27	PHANTOM	O	—
28	TCH LOGIC	O	—
29	NORMAL	O	—
30	WIDE	O	CENTER MODE LED ON/OFF control pin.
31	INH1	O	Video 1 picture output loop-cut control pin.
32	V1	O	Video 1 image output loop-cut control pin.
33	V2	O	Video 2 image output loop-cut control pin.
34	INH2	O	Video 2 picture output loop-cut control pin.
35	RESET	I	Reset pin. Reset at L.
36	STOP	I	Power failure detection pin.
37	PROTECT	I	Speaker output protector detection input pin.
38	SIRCS IN	I	Remote control signal input pin.
39	VIDEO SCART	O	Video input detect
40	VDD	—	Power supply pin. (+5 V)

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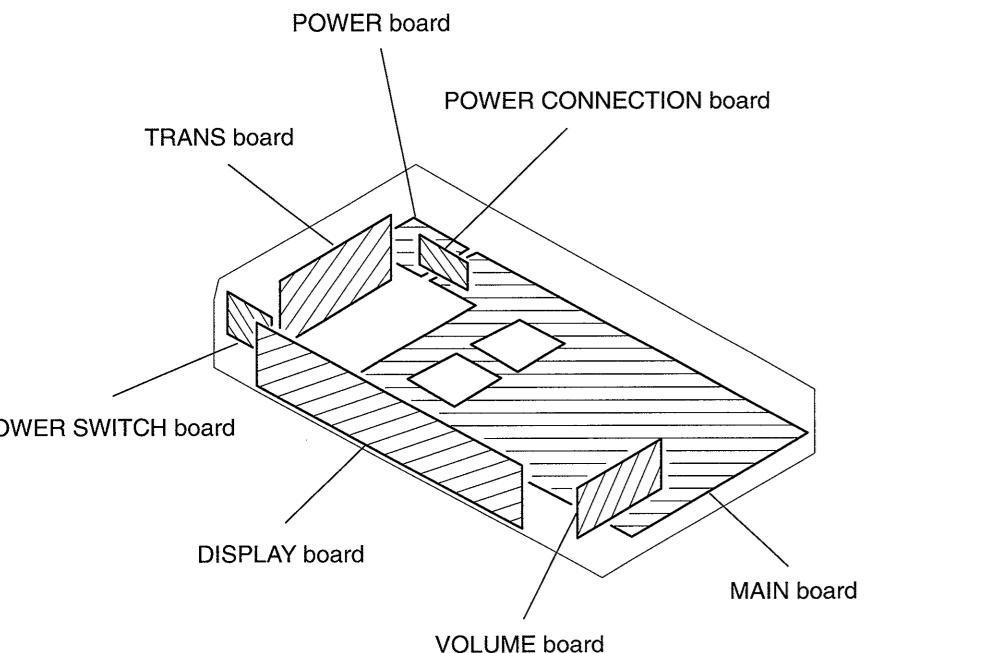
Pin No.	Pin Name	I/O	Pin Description
41	X1	—	System clock pin. (10 MHz)
42	X2	—	—
43	ICO	—	Not used. (Ground)
44	XT2	—	Not used. (Open)
45	GND	—	Ground
46	IC1	—	Not used. (Ground)
47	KO1	O	Key matrix output pin.
48	KO2	O	—
49	KO3	O	Key matrix output pin.
50	KI1	I	—
51	KI2	I	Key matrix input pin.
52	KI3	I	—
53	KI4	I	—
54	SOA5204D	I	Model identification pin.
55	IC2	—	VDD connection. (+5 V)
56	IC3	—	Not used. (Ground)
57	P20	I	Not used.
58	P21	I	Not used.
59	7823_CE	O	Serial data output to audio function switch.
60	DATA	O	Serial data output to surround processor.
61	CLK	O	Serial clock output.
62	2780_CE	O	Data latch output to surround processor.
63	P26	—	Not used.
64	P5W	I	Power switch ON/OFF detection pin.

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SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

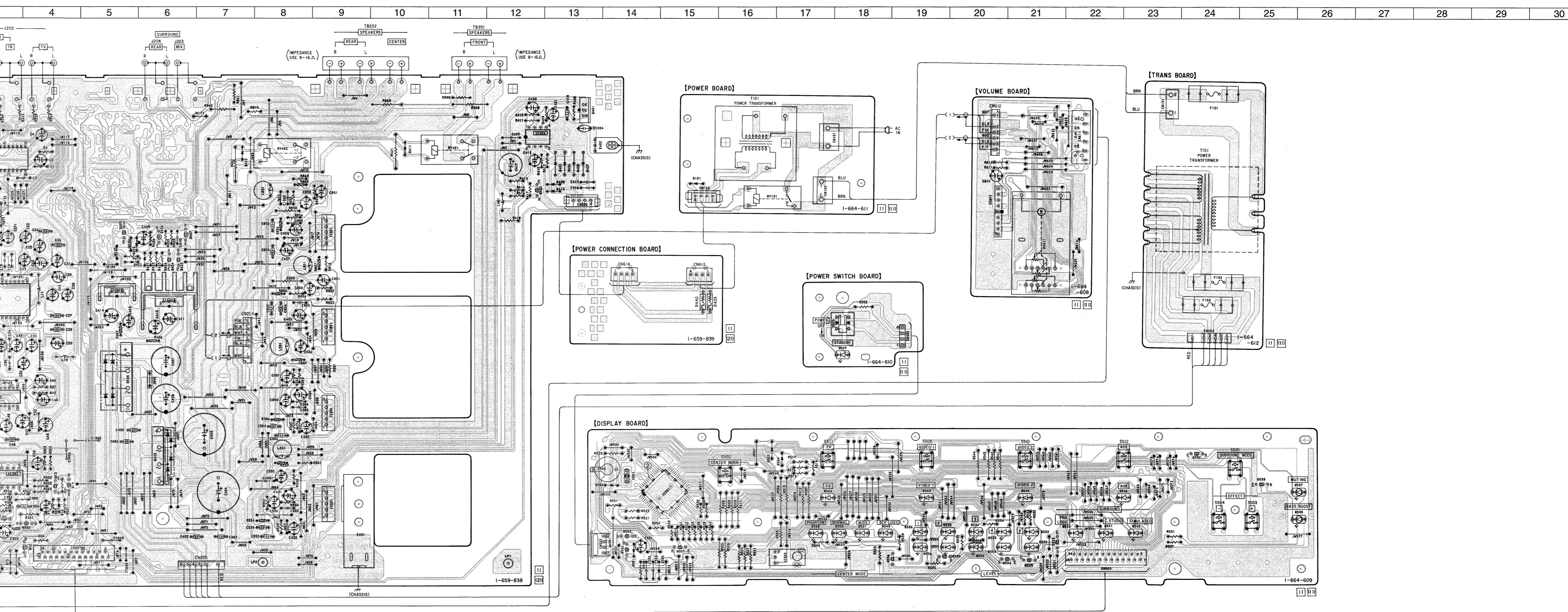


• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D11	D-1	IC202	E-3
D12	I-4	IC203	G-3
D15	J-3	IC204	C-2
D101	C-15	IC301	I-3
D401	E-6	IC302	F-2
D402	F-5	IC331	I-9
D403	H-6	IC381	G-9
D404	G-5	IC402	E-6
D405	C-13	IC403	E-5
D406	C-13	IC404	C-12
D407	C-13	IC501	I-15
D408	C-13	IC502	J-17
D409	D-13	IC611	D-20
D410	C-10	IC801	F-9
D411	C-7	IC851	D-9
D412	E-5	Q11	D-1
D414	J-14	Q12	J-4
D501	H-16	Q13	I-4
D502	H-17	Q14	I-4
D504	J-15	Q15	G-1
D505	I-14	Q16	I-2
D506	J-21	Q301	I-2
D532	J-20	Q302	I-3
D533	I-20	Q303	H-2
D534	I-19	Q304	E-1
D535	I-19	Q351	I-3
D536	I-26	Q352	I-4
D537	I-26	Q353	I-2
D538	I-23	Q354	F-2
D540	I-22	Q401	B-13
D541	I-22	Q402	D-12
D542	I-19	Q403	E-6
D543	I-17	Q404	E-6
D544	I-21	Q405	D-5
D545	I-23	Q406	D-6
D546	F-18	Q407	D-6
D547	I-17	Q501	J-14
D548	I-18	Q502	J-14
D549	I-18	Q532	J-21
D550	I-18	Q533	J-21
D551	J-21	Q534	J-21
D552	J-20	Q535	J-20
D553	J-20	Q536	J-18
D554	J-19	Q537	H-24
D555	J-19	Q538	I-25
D556	J-19	Q551	J-15
IC201	C-3		

Note :
 • — : Parts extracted from the component side.
 — — : Pattern on the side which is seen.

3-2. PRINTED WIRING BOARDS

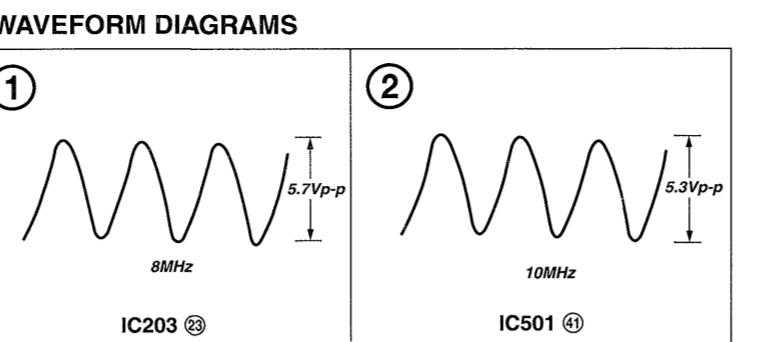


Note :

- All capacitors are in μF unless otherwise noted. $\text{pF} : \mu\text{F}$ 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- \triangle : internal component.
- : nonflammable resistor.

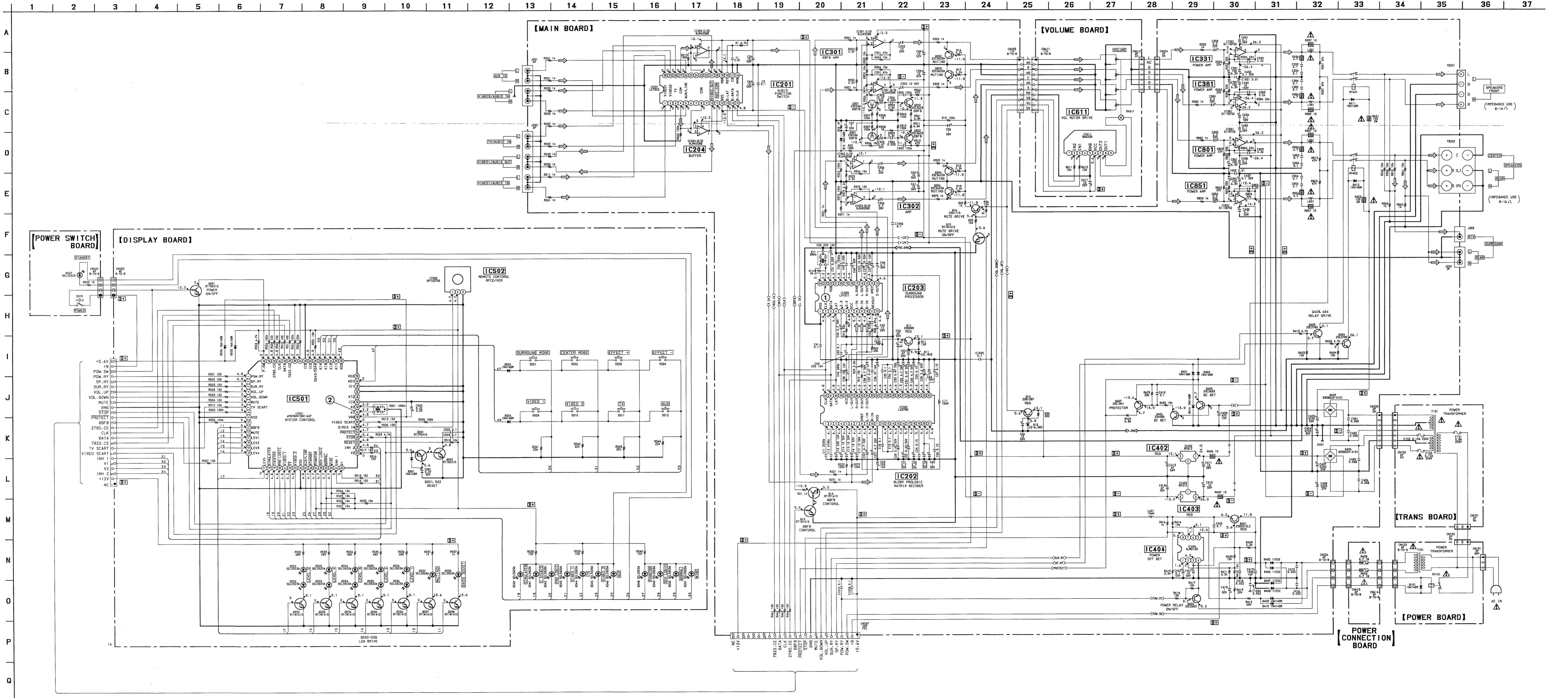
Note : The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- : B+Line.
- : B-Line.
- : adjustment for repair.
- Voltage is dc with respect to ground under no-signal conditions.
- Voltage are taken with a VOM (input impedance 10M Ω).
- Voltage variations may be noted due to normal production tolerance.
- Numbers in round mark (○) are the reference number with waveform diagram.
- Signal path.

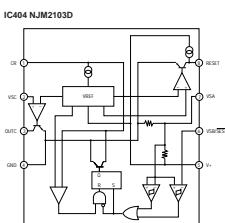
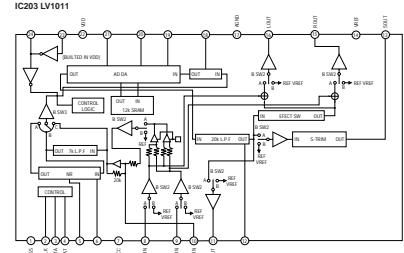
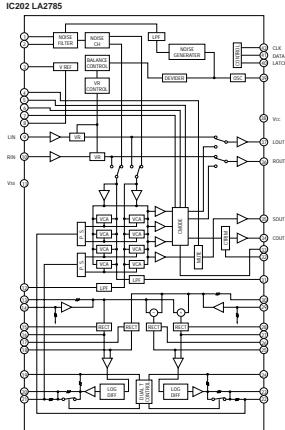
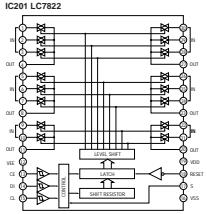


3-3. SCHEMATIC DIAGRAM

• See page 18 for IC BLOCK DIAGRAMS.



3-4. IC BLOCK DIAGRAMS

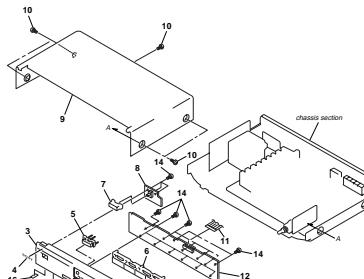
SECTION 4
EXPLODED VIEWS

NOTE

- XX-X mean standardized parts, so they may have some differences from the original one.
- Items marked with mark A or dotted line are soldens required for routine service. Some delay should be anticipated when ordering these items.

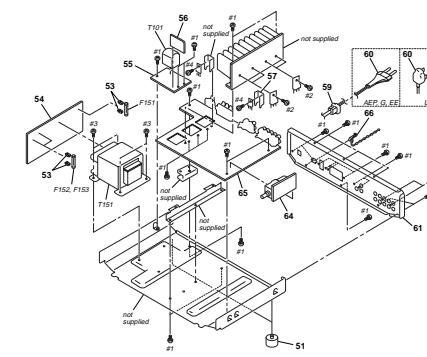
The components identified by mark A, or dotted line with mark A, are critical for safety. Replace only with part number specified.

4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks
1	4-980-041-01	KNOB (VOL)	
2	4-980-035-11	WINDOW	
3	4-980-035-11	WINDOW FRONT	
4	4-963-404-21	EMBLEM (S-A), SONY	
5	4-980-029-01	BUTTON (LEVEL)	
6	4-980-040-01	BUTTON (FUNCTION)	
7	3-931-424-01	SWITCH (POWER)	
* 8	1-644-613-11	POWER SWITCH BOARD	

4-2. CHASSIS SECTION



Ref. No.	Part No.	Description	Remarks
51	X-3371-405-1	FOOT (SMALL) ASSY	
53	1-533-293-11	FUSE HOLDER	
* 54	1-644-401-11	MAIN BOARD, COMPLETE	
* 55	1-644-411-11	POWER BOARD	
* 56	1-659-839-11	POWER CONNECTION BOARD	
			△.F151
* 57	3-309-144-21	HEAT SINK	
			△.F152
10	3-704-364-01	SCREW (COPPER) (1000)	
11	3-704-364-01	SCREW (COPPER) (749)	
12	A-4392-561-A	DISPLAY BOARD, COMPLETE	
13	4-980-038-01	SWITCH (POSITION)	
14	4-951-620-01	SCREW (2.5MM-BVTP)	
15	4-951-620-01	RING (BA 52) (ORNAMENTAL)	
16	4-977-358-11	SCREW (2X12.5)	

Ref. No.	Part No.	Description	Remarks
* A1	4-988-714-11	PANEL BACK (UK)	
* 64	1-644-401-11	VOLUME BOARD	
* 65	A-4392-564-A	MAIN BOARD, COMPLETE	
* 66	1-644-411-11	POWER BOARD	
* 67	1-659-839-11	POWER CONNECTION BOARD	
* 68	1-532-465-51	FUSE, TIME LAG (T3 15A/250V)	
* 69	1-532-465-51	FUSE, TIME LAG (T3 15A/250V)	
* 70	1-777-071-11	CORD, POWER (AEP G, EE)	
* 71	1-777-071-11	CORD, POWER (AEP G, EE)	
* 72	4-988-714-11	PANEL BACK (AEP G, EE)	
* 73	1-431-145-11	TRANSFORMER, POWER	
* 74	1-431-146-11	TRANSFORMER, POWER	
* 75	1-431-146-11	TRANSFORMER, POWER	

The components identified by mark A, or dotted line with mark A, are critical for safety. Replace only with part number specified.

SECTION 5 ELECTRICAL PARTS LIST

DISPLAY

NOTE:

When indicating parts by reference number, please include the board name.
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety. Replace only with part number specified.

- Abbreviation
 - G: German model
 - EE: East European model

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
uF: μ F

- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- COILS
uH: μ H
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA... , μ PA... ,
uPB... , μ PB... , uPC... , μ PC... ,
uPD... , μ PD...

Ref. No.	Part No.	Description			Remarks		Ref. No.	Part No.	Description			Remarks	
*	A-4392-561-A	DISPLAY BOARD, COMPLETE							< IC >				
		*****							*****				
		< CAPACITOR >							< TRANSISTOR >				
C501	1-124-465-00	ELECT	0.47uF	20%	50V		IC501	8-759-429-36	IC	uPD78001BGC-627-AB8			
C502	1-164-159-11	CERAMIC	0.1uF		50V		IC502	8-759-332-18	IC	GP1U27XB			
C503	1-164-159-11	CERAMIC	0.1uF		50V				< CONNECTOR >				
C505	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V		Q501	8-729-900-63	TRANSISTOR	DTA124ES			
		< CONNECTOR >					Q502	8-729-661-95	TRANSISTOR	RT1N241SK-TP			
		< DIODE >					Q532	8-729-661-94	TRANSISTOR	RT1N141SK-TP			
CN501	1-569-310-11	SOCKET, CONNECTOR (L TYRE) 25P					Q533	8-729-661-94	TRANSISTOR	RT1N141SK-TP			
CN502	1-562-087-00	SOCKET, CONNECTOR 4P					Q534	8-729-661-94	TRANSISTOR	RT1N141SK-TP			
		< DIODE >							< RESISTOR >				
D501	8-719-987-63	DIODE	1N4148M				R501	1-247-807-31	CARBON	100	5%	1/4W	
D502	8-719-987-63	DIODE	1N4148M				R502	1-247-807-31	CARBON	100	5%	1/4W	
D504	8-719-987-63	DIODE	1N4148M				R503	1-247-807-31	CARBON	100	5%	1/4W	
D505	8-719-987-63	DIODE	1N4148M				R504	1-247-807-31	CARBON	100	5%	1/4W	
D506	8-719-987-63	DIODE	1N4148M				R505	1-249-441-11	CARBON	100K	5%	1/4W	
		< RESISTOR >							< RESISTOR >				
D532	8-719-057-97	LED SEL5923A-TP15 (LEVEL 5)					R506	1-247-807-31	CARBON	100	5%	1/4W	
D533	8-719-057-97	LED SEL5923A-TP15 (LEVEL 4)					R507	1-247-807-31	CARBON	100	5%	1/4W	
D534	8-719-057-97	LED SEL5923A-TP15 (LEVEL 3)					R508	1-247-807-31	CARBON	100	5%	1/4W	
D535	8-719-057-97	LED SEL5923A-TP15 (LEVEL 2)					R509	1-247-807-31	CARBON	100	5%	1/4W	
D536	8-719-057-97	LED SEL5923A-TP15 (LEVEL 1)					R510	1-247-807-31	CARBON	100	5%	1/4W	
		< RESISTOR >							< RESISTOR >				
D537	8-719-057-97	LED SEL5923A-TP15 (MUTING)					R511	1-247-807-31	CARBON	100	5%	1/4W	
D538	8-719-057-97	LED SEL5923A-TP15 (BASS BOOST)					R512	1-247-807-31	CARBON	100	5%	1/4W	
D540	8-719-057-97	LED SEL5923A-TP15 (SIMULATED)					R513	1-247-807-31	CARBON	100	5%	1/4W	
D541	8-719-057-97	LED SEL5923A-TP15 (C STUDIO)					R514	1-247-807-31	CARBON	100	5%	1/4W	
D542	8-719-057-97	LED SEL5923A-TP15 (PRO LOGIC)					R515	1-247-807-31	CARBON	100	5%	1/4W	
		< RESISTOR >							< RESISTOR >				
D543	8-719-033-06	LED SEL5920A (VIDEO 1)					R516	1-247-807-31	CARBON	100	5%	1/4W	
D544	8-719-033-06	LED SEL5920A (TV)					R517	1-247-807-31	CARBON	100	5%	1/4W	
D545	8-719-033-06	LED SEL5920A (VIDEO 2)					R518	1-249-429-11	CARBON	10K	5%	1/4W	
D546	8-719-033-06	LED SEL5920A (AUX)					R520	1-249-441-11	CARBON	100K	5%	1/4W	
D548	8-719-057-97	LED SEL5923A-TP15 (PHANTOM)					R521	1-249-441-11	CARBON	100K	5%	1/4W	
		< RESISTOR >							< RESISTOR >				
D549	8-719-057-97	LED SEL5923A-TP15 (3CH LOGIC)					R522	1-249-441-11	CARBON	100K	5%	1/4W	
D550	8-719-057-97	LED SEL5923A-TP15 (NORMAL)					R523	1-249-425-11	CARBON	4.7K	5%	1/4W F	
D551	8-719-057-97	LED SEL5923A-TP15 (WIDE)					R524	1-249-429-11	CARBON	10K	5%	1/4W	
D552	8-719-057-97	LED SEL5923A-TP15 (LEVEL 5)					R525	1-249-429-11	CARBON	10K	5%	1/4W	
D553	8-719-057-97	LED SEL5923A-TP15 (LEVEL 4)					R526	1-249-429-11	CARBON	10K	5%	1/4W	
		< RESISTOR >							< RESISTOR >				
D554	8-719-057-97	LED SEL5923A-TP15 (LEVEL 3)							< RESISTOR >				
D555	8-719-057-97	LED SEL5923A-TP15 (LEVEL 2)							< RESISTOR >				
D556	8-719-057-97	LED SEL5923A-TP15 (LEVEL 1)							< RESISTOR >				

DISPLAY **MAIN**

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R527	1-249-429-11	CARBON	10K	5%	1/4W	C17	1-126-964-11	ELECT	10uF	20%	50V
R528	1-247-807-31	CARBON	100	5%	1/4W	C18	1-164-159-11	CERAMIC	0.1uF	50V	
R529	1-247-807-31	CARBON	100	5%	1/4W	C19	1-164-159-11	CERAMIC	0.1uF	50V	
R530	1-249-441-11	CARBON	100K	5%	1/4W	C20	1-126-959-11	ELECT	0.47uF	20%	50V
R531	1-249-417-11	CARBON	1K	5%	1/4W F	C21	1-126-963-11	ELECT	4.7uF	20%	50V
R532	1-249-415-11	CARBON	680	5%	1/4W F	C22	1-126-959-11	ELECT	0.47uF	20%	50V
R533	1-249-415-11	CARBON	680	5%	1/4W F	C23	1-126-963-11	ELECT	4.7uF	20%	50V
R534	1-249-415-11	CARBON	680	5%	1/4W F	C24	1-136-167-00	FILM	0.15uF	5%	50V
R535	1-249-415-11	CARBON	680	5%	1/4W F	C25	1-126-961-11	ELECT	2.2uF	20%	50V
R536	1-249-415-11	CARBON	680	5%	1/4W F	C26	1-136-167-00	FILM	0.15uF	5%	50V
R537	1-249-417-11	CARBON	1K	5%	1/4W F	C27	1-136-167-00	FILM	0.15uF	5%	50V
R538	1-249-407-11	CARBON	150	5%	1/4W F	C28	1-126-961-11	ELECT	2.2uF	20%	50V
R539	1-247-807-31	CARBON	100	5%	1/4W	C29	1-136-167-00	FILM	0.15uF	5%	50V
R540	1-249-407-11	CARBON	150	5%	1/4W F	C30	1-126-963-11	ELECT	4.7uF	20%	50V
R541	1-249-433-11	CARBON	22K	5%	1/4W	C31	1-126-959-11	ELECT	0.47uF	20%	50V
R542	1-249-433-11	CARBON	22K	5%	1/4W	C32	1-126-963-11	ELECT	4.7uF	20%	50V
R543	1-249-433-11	CARBON	22K	5%	1/4W	C33	1-126-959-11	ELECT	0.47uF	20%	50V
R544	1-249-433-11	CARBON	22K	5%	1/4W	C34	1-164-159-11	CERAMIC	0.1uF	50V	
R551	1-249-429-11	CARBON	10K	5%	1/4W	C35	1-164-159-11	CERAMIC	0.1uF	50V	
R553	1-249-425-11	CARBON	4.7K	5%	1/4W F	C36	1-126-967-11	ELECT	47uF	20%	16V
R554	1-249-441-11	CARBON	100K	5%	1/4W	C37	1-136-173-00	FILM	0.47uF	5%	50V
R555	1-249-429-11	CARBON	10K	5%	1/4W	C38	1-126-963-11	ELECT	4.7uF	20%	50V
						C39	1-126-933-11	ELECT	100uF	20%	16V
						C40	1-137-363-91	FILM	680PF	5%	50V
						C41	1-164-159-11	CERAMIC	0.1uF		50V
S501	1-554-303-21	SWITCH, TACTILE (SURROUND MODE)				C42	1-164-159-11	CERAMIC	0.1uF		50V
S502	1-554-303-21	SWITCH, TACTILE (CENTER MODE)				C43	1-126-934-11	ELECT	220uF	20%	16V
S503	1-554-303-21	SWITCH, TACTILE (EFFECT +)				C44	1-126-961-11	ELECT	2.2uF	20%	50V
S504	1-554-303-21	SWITCH, TACTILE (EFFECT -)				C45	1-126-964-11	ELECT	10uF	20%	50V
S509	1-554-303-21	SWITCH, TACTILE (VIDEO 1)				C46	1-126-963-11	ELECT	4.7uF	20%	50V
S510	1-554-303-21	SWITCH, TACTILE (VIDEO 2)				C47	1-126-934-11	ELECT	220uF	20%	16V
S511	1-554-303-21	SWITCH, TACTILE (TV)				C48	1-126-960-11	ELECT	1uF	20%	50V
S512	1-554-303-21	SWITCH, TACTILE (AUX)				C49	1-136-159-00	FILM	0.033uF	5%	50V
						C50	1-130-473-00	MYLAR	0.0015uF	5%	50V
						C51	1-136-159-00	FILM	0.033uF	5%	50V
X501	1-579-175-11	VIBRATOR, CERAMIC 10MHz				C52	1-126-934-11	ELECT	220uF	20%	16V
*	A-4392-566-A	MAIN BOARD, COMPLETE				C53	1-126-934-11	ELECT	220uF	20%	16V
*	3-309-144-21	HEAT SINK				C54	1-126-967-11	ELECT	47uF	20%	50V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3				C55	1-126-967-11	ELECT	47uF	20%	50V
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3				C56	1-126-960-11	ELECT	1uF	20%	50V
	7-685-872-09	SCREW +BVTT 3X8 (S)				C57	1-126-960-11	ELECT	1uF	20%	50V
						C58	1-126-964-11	ELECT	10uF	20%	50V
						C59	1-126-964-11	ELECT	10uF	20%	50V
						C60	1-126-964-11	ELECT	10uF	20%	50V
						C61	1-126-964-11	ELECT	10uF	20%	50V
C1	1-162-306-11	CERAMIC	0.01uF	20%	16V	C62	1-136-159-00	FILM	0.033uF	5%	50V
C2	1-126-964-11	ELECT	10uF	20%	50V	C63	1-126-960-11	ELECT	1uF	20%	50V
C3	1-164-159-11	CERAMIC	0.1uF		50V	C64	1-126-960-11	ELECT	1uF	20%	50V
C4	1-126-964-11	ELECT	10uF	20%	50V	C66	1-126-964-11	ELECT	10uF	20%	50V
C11	1-162-302-11	CERAMIC	0.0022uF	30%	16V	C221	1-126-963-11	ELECT	4.7uF	20%	50V
C12	1-162-600-11	CERAMIC	0.0047uF	30%	16V	C222	1-126-964-11	ELECT	10uF	20%	50V
C13	1-126-934-11	ELECT	220uF	20%	16V	C271	1-126-963-11	ELECT	4.7uF	20%	50V
C14	1-126-964-11	ELECT	10uF	20%	50V	C272	1-126-964-11	ELECT	10uF	20%	50V
C15	1-126-964-11	ELECT	10uF	20%	50V	C301	1-162-215-31	CERAMIC	47PF	5%	50V
C16	1-126-964-11	ELECT	10uF	20%	50V	C302	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description		Remarks	
C303	1-126-959-11	ELECT	0.47uF	20%	50V	C850	1-126-961-11	ELECT	2.2uF	20%	50V
C304	1-136-159-00	FILM	0.033uF	5%	50V	C851	1-126-933-11	ELECT	100uF	20%	10V
C305	1-162-282-31	CERAMIC	100PF	10%	50V	C852	1-136-165-00	FILM	0.1uF	5%	50V
C306	1-126-963-11	ELECT	4.7uF	20%	50V	C853	1-162-191-31	CERAMIC	2.2PF	10%	50V
C330	1-126-961-11	ELECT	2.2uF	20%	50V	C854	1-136-165-00	FILM	0.1uF	5%	50V
C331	1-126-933-11	ELECT	100uF	20%	10V	C1001	1-162-306-11	CERAMIC	0.01uF	20%	16V
C332	1-136-165-00	FILM	0.1uF	5%	50V	C1003	1-162-306-11	CERAMIC	0.01uF	20%	16V
C333	1-162-191-31	CERAMIC	2.2PF	10%	50V	C1004	1-101-005-00	CERAMIC	22000PF		50V
C334	1-136-165-00	FILM	0.1uF	5%	50V	C1005	1-164-159-11	CERAMIC	0.1uF		50V
C351	1-162-215-31	CERAMIC	47PF	5%	50V	C1006	1-164-159-11	CERAMIC	0.1uF		50V
C352	1-126-964-11	ELECT	10uF	20%	50V	C1009	1-164-159-11	CERAMIC	0.1uF		50V
C353	1-126-959-11	ELECT	0.47uF	20%	50V	C1010	1-164-159-11	CERAMIC	0.1uF		50V
C354	1-136-159-00	FILM	0.033uF	5%	50V	< CONNECTOR >					
C355	1-162-282-31	CERAMIC	100PF	10%	50V	CN203	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P			
C356	1-126-963-11	ELECT	4.7uF	20%	50V	* CN206	1-565-495-11	CONNECTOR, BOARD TO BOARD 4P			
C380	1-126-961-11	ELECT	2.2uF	20%	50V	< DIODE >					
C381	1-126-933-11	ELECT	100uF	20%	10V	D11	8-719-001-30	DIODE	UZL-9H3		
C382	1-136-165-00	FILM	0.1uF	5%	50V	D12	8-719-987-63	DIODE	1N4148M		
C383	1-162-191-31	CERAMIC	2.2PF	10%	50V	D15	8-719-109-93	DIODE	RD6.2ESB2		
C384	1-136-165-00	FILM	0.1uF	5%	50V	D401	8-719-987-63	DIODE	1N4148M		
C401	1-137-375-11	FILM	0.068uF	5%	50V	D402	8-719-987-63	DIODE	1N4148M		
C402	1-137-375-11	FILM	0.068uF	5%	50V	D403	8-719-028-23	DIODE	D3SBA20-4101		
C403	1-126-955-11	ELECT	4700uF	20%	35V	D404	8-719-028-23	DIODE	D3SBA20-4101		
C404	1-126-955-11	ELECT	4700uF	20%	35V	D405	8-719-024-99	DIODE	11ES2-NTA2B		
C405	1-137-375-11	FILM	0.068uF	5%	50V	D406	8-719-024-99	DIODE	11ES2-NTA2B		
C406	1-137-375-11	FILM	0.068uF	5%	50V	D407	8-719-024-99	DIODE	11ES2-NTA2B		
C407	1-126-943-11	ELECT	2200uF	20%	25V	D408	8-719-024-99	DIODE	11ES2-NTA2B		
C408	1-126-943-11	ELECT	2200uF	20%	25V	D409	8-719-987-63	DIODE	1N4148M		
C409	1-126-925-11	ELECT	470uF	20%	10V	D410	8-719-987-63	DIODE	1N4148M		
C410	1-164-159-11	CERAMIC	0.1uF		50V	D411	8-719-987-63	DIODE	1N4148M		
C411	1-126-964-11	ELECT	10uF	20%	50V	D412	8-719-987-63	DIODE	1N4148M		
C412	1-126-964-11	ELECT	10uF	20%	50V	D414	8-719-987-63	DIODE	1N4148M		
C413	1-126-967-11	ELECT	47uF	20%	50V	< TERMINAL >					
C414	1-126-967-11	ELECT	47uF	20%	50V	* E401	4-962-200-01	PLATE (TR), GROUND			
C415	1-161-494-00	CERAMIC	0.022uF		25V	E402	1-537-770-21	TERMINAL BOARD, GROUND			
C416	1-161-494-00	CERAMIC	0.022uF		25V	< IC >					
C417	1-126-952-11	ELECT	1000uF	20%	16V	IC201	8-759-805-14	IC	LC7822		
C418	1-164-097-11	CERAMIC	0.022uF		50V	IC202	8-759-248-74	IC	LA2785		
C419	1-126-960-11	ELECT	1uF	20%	50V	IC203	8-759-341-23	IC	LV1011		
C420	1-164-159-11	CERAMIC	0.1uF		50V	IC204	8-759-634-51	IC	M5218AP		
C421	1-126-964-11	ELECT	10uF	20%	50V	IC301	8-759-634-51	IC	M5218AP		
C422	1-126-956-91	ELECT	0.1uF	20%	50V	IC302	8-759-634-51	IC	M5218AP		
C431	1-126-964-11	ELECT	10uF	20%	50V	IC331	8-759-502-33	IC	SI18752		
C432	1-126-964-11	ELECT	10uF	20%	50V	IC381	8-759-502-33	IC	SI18752		
C433	1-126-964-11	ELECT	10uF	20%	50V	IC402	8-759-231-58	IC	TA7812S		
C434	1-126-964-11	ELECT	10uF	20%	50V	IC403	8-759-245-86	IC	TA79012S		
C435	1-126-964-11	ELECT	10uF	20%	50V	IC404	8-759-333-83	IC	NJM2103D		
C436	1-126-964-11	ELECT	10uF	20%	50V	IC801	8-759-502-33	IC	SI18752		
C437	1-126-964-11	ELECT	10uF	20%	50V	IC851	8-759-502-33	IC	SI18752		
C438	1-126-964-11	ELECT	10uF	20%	50V						
C800	1-126-961-11	ELECT	2.2uF	20%	50V						
C801	1-126-933-11	ELECT	100uF	20%	10V						
C802	1-136-165-00	FILM	0.1uF	5%	50V						
C803	1-162-191-31	CERAMIC	2.2PF	10%	50V						
C804	1-136-165-00	FILM	0.1uF	5%	50V						

MAIN

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
< JACK >											
J201	1-770-614-11	JACK, PIN 4P (AUX/VIDEO 2)				R25	1-249-429-11	CARBON	10K	5%	1/4W
J202	1-580-825-11	JACK, PIN 6P (VIDEO 1/TV)				R26	1-249-429-11	CARBON	10K	5%	1/4W
J203	1-774-843-11	JACK, PIN 1P (SURROUND MIX)				R27	1-249-427-11	CARBON	6.8K	5%	1/4W F
J204	1-774-822-11	JACK, PIN 2P (SURROUND REAR)				R28	1-249-427-11	CARBON	6.8K	5%	1/4W F
						R29	1-247-843-11	CARBON	3.3K	5%	1/4W
< COIL >											
L11	1-410-509-11	INDUCTOR	10uH			R30	1-249-411-11	CARBON	330	5%	1/4W
L12	1-410-509-11	INDUCTOR	10uH			R201	1-249-417-11	CARBON	1K	5%	1/4W F
L331	1-420-872-00	COIL, AIR-CORE				R205	1-249-417-11	CARBON	1K	5%	1/4W F
L381	1-420-872-00	COIL, AIR-CORE				R207	1-249-417-11	CARBON	1K	5%	1/4W F
L401	1-410-509-11	INDUCTOR	10uH			R209	1-249-417-11	CARBON	1K	5%	1/4W F
L801	1-420-872-00	COIL, AIR-CORE				R211	1-249-417-11	CARBON	1K	5%	1/4W F
L851	1-420-872-00	COIL, AIR-CORE				R215	1-249-441-11	CARBON	100K	5%	1/4W
						R221	1-249-417-11	CARBON	1K	5%	1/4W F
< TRANSISTOR >											
Q11	8-729-180-92	TRANSISTOR	2SD809-K			R222	1-249-441-11	CARBON	100K	5%	1/4W
Q12	8-729-801-93	TRANSISTOR	2SD1387			R251	1-249-417-11	CARBON	1K	5%	1/4W F
Q13	8-729-661-94	TRANSISTOR	RT1N141SK-TP			R255	1-249-417-11	CARBON	1K	5%	1/4W F
Q14	8-729-661-98	TRANSISTOR	RT1P141SK-TP			R257	1-249-417-11	CARBON	1K	5%	1/4W F
Q15	8-729-661-94	TRANSISTOR	RT1N141SK-TP			R259	1-249-417-11	CARBON	1K	5%	1/4W F
						R261	1-249-417-11	CARBON	1K	5%	1/4W F
						R265	1-249-441-11	CARBON	100K	5%	1/4W
Q16	8-729-119-76	TRANSISTOR	2SA1175-HFE			R271	1-249-417-11	CARBON	1K	5%	1/4W F
Q301	8-729-202-67	TRANSISTOR	2SK246-GR3			R272	1-249-441-11	CARBON	100K	5%	1/4W
Q302	8-729-141-30	TRANSISTOR	2SC3623A-LK			R301	1-249-417-11	CARBON	1K	5%	1/4W F
Q303	8-729-141-30	TRANSISTOR	2SC3623A-LK			R302	1-249-421-11	CARBON	2.2K	5%	1/4W F
Q304	8-729-141-30	TRANSISTOR	2SC3623A-LK			R303	1-249-429-11	CARBON	10K	5%	1/4W
						R304	1-249-431-11	CARBON	15K	5%	1/4W
						R305	1-249-417-11	CARBON	1K	5%	1/4W F
Q351	8-729-202-67	TRANSISTOR	2SK246-GR3			R306	1-247-903-00	CARBON	1M	5%	1/4W
Q352	8-729-141-30	TRANSISTOR	2SC3623A-LK			R307	1-249-441-11	CARBON	100K	5%	1/4W
Q353	8-729-141-30	TRANSISTOR	2SC3623A-LK			R308	1-247-903-00	CARBON	1M	5%	1/4W
Q401	8-729-018-60	TRANSISTOR	2SD2012-LC			R309	1-247-843-11	CARBON	3.3K	5%	1/4W
						R310	1-247-883-00	CARBON	150K	5%	1/4W
Q402	8-729-620-05	TRANSISTOR	2SC2603-EF			R311	1-249-427-11	CARBON	6.8K	5%	1/4W F
Q403	8-729-119-78	TRANSISTOR	2SC2785-HFE			R312	1-249-413-11	CARBON	470	5%	1/4W F
Q404	8-729-119-78	TRANSISTOR	2SC2785-HFE			R321	1-249-417-11	CARBON	1K	5%	1/4W F
Q405	8-729-620-05	TRANSISTOR	2SC2603-EF			R322	1-249-441-11	CARBON	100K	5%	1/4W
Q406	8-729-140-82	TRANSISTOR	2SA988-PAFAEA			R323	1-249-421-11	CARBON	2.2K	5%	1/4W F
Q407	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			R324	1-249-429-11	CARBON	10K	5%	1/4W
						R325	1-249-417-11	CARBON	1K	5%	1/4W F
< RESISTOR >											
R1	1-249-425-11	CARBON	4.7K	5%	1/4W F	R330	1-249-417-11	CARBON	1K	5%	1/4W F
R11	1-249-407-11	CARBON	150	5%	1/4W F	R332	1-249-433-11	CARBON	22K	5%	1/4W
R12	1-249-431-11	CARBON	15K	5%	1/4W	R333	1-249-411-11	CARBON	330	5%	1/4W
R13	1-249-435-11	CARBON	33K	5%	1/4W	R334	1-249-433-11	CARBON	22K	5%	1/4W
R14	1-247-903-00	CARBON	1M	5%	1/4W	△R336	1-249-389-11	CARBON	4.7	5%	1/4W F
						△R337	1-249-393-11	CARBON	10	5%	1/4W F
R15	1-249-441-11	CARBON	100K	5%	1/4W	R340	1-249-429-11	CARBON	10K	5%	1/4W
R16	1-249-421-11	CARBON	2.2K	5%	1/4W F	R341	1-249-437-11	CARBON	47K	5%	1/4W
R17	1-249-421-11	CARBON	2.2K	5%	1/4W F	R351	1-249-417-11	CARBON	1K	5%	1/4W F
R18	1-249-421-11	CARBON	2.2K	5%	1/4W F	R352	1-249-421-11	CARBON	2.2K	5%	1/4W F
R19	1-249-421-11	CARBON	2.2K	5%	1/4W F	R353	1-249-429-11	CARBON	10K	5%	1/4W
R20	1-249-417-11	CARBON	1K	5%	1/4W F						
R21	1-249-417-11	CARBON	1K	5%	1/4W F						
R22	1-249-441-11	CARBON	100K	5%	1/4W						
R23	1-247-903-00	CARBON	1M	5%	1/4W						
R24	1-249-435-11	CARBON	33K	5%	1/4W						

The components identified by mark △ or dotted line with mark ▲ are critical for safety.
Replace only with part number specified.

MAIN

POWER

POWER CONNECTION

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R354	1-249-431-11	CARBON	15K	5%	1/4W	R813	1-249-437-11	CARBON	47K	5%	1/4W
R355	1-249-417-11	CARBON	1K	5%	1/4W F	R850	1-249-417-11	CARBON	1K	5%	1/4W F
R356	1-247-903-00	CARBON	1M	5%	1/4W	R852	1-249-433-11	CARBON	22K	5%	1/4W
R357	1-249-441-11	CARBON	100K	5%	1/4W	R853	1-249-411-11	CARBON	330	5%	1/4W
R358	1-247-903-00	CARBON	1M	5%	1/4W	R854	1-249-433-11	CARBON	22K	5%	1/4W
R359	1-247-843-11	CARBON	3.3K	5%	1/4W	△ R856	1-249-389-11	CARBON	4.7	5%	1/4W F
R360	1-247-883-00	CARBON	150K	5%	1/4W	△ R857	1-249-393-11	CARBON	10	5%	1/4W F
R361	1-249-427-11	CARBON	6.8K	5%	1/4W F	R860	1-249-417-11	CARBON	1K	5%	1/4W F
R362	1-249-413-11	CARBON	470	5%	1/4W F	R861	1-249-429-11	CARBON	10K	5%	1/4W
R371	1-249-417-11	CARBON	1K	5%	1/4W F	R862	1-249-417-11	CARBON	1K	5%	1/4W F
R372	1-249-441-11	CARBON	100K	5%	1/4W	R863	1-249-437-11	CARBON	47K	5%	1/4W
R373	1-249-421-11	CARBON	2.2K	5%	1/4W F						< RELAY >
R374	1-249-429-11	CARBON	10K	5%	1/4W	RY401	1-515-920-11	RELAY (24V)			
R375	1-249-417-11	CARBON	1K	5%	1/4W F	RY402	1-515-920-11	RELAY (24V)			
R380	1-249-417-11	CARBON	1K	5%	1/4W F						
R382	1-249-433-11	CARBON	22K	5%	1/4W						
R383	1-249-411-11	CARBON	330	5%	1/4W						< TERMINAL >
R384	1-249-433-11	CARBON	22K	5%	1/4W						
△ R386	1-249-389-11	CARBON	4.7	5%	1/4W F	TB201	1-537-925-31	TERMINAL BOARD(FRONT SPEAKERS)			
△ R387	1-249-393-11	CARBON	10	5%	1/4W F	TB202	1-537-923-11	TERMINAL BOARD(6P) (REAR/CENTER SPEAKERS)			
R390	1-249-429-11	CARBON	10K	5%	1/4W						
R391	1-249-437-11	CARBON	47K	5%	1/4W						< VIBRATOR >
R403	1-249-429-11	CARBON	10K	5%	1/4W	X11	1-579-952-21	VIBRATOR, CERAMIC (8MHz)			
R404	1-249-429-11	CARBON	10K	5%	1/4W						
R405	1-249-429-11	CARBON	10K	5%	1/4W						
△ R406	1-249-393-11	CARBON	10	5%	1/4W F	*	1-664-611-11	POWER BOARD			
△ R407	1-249-393-11	CARBON	10	5%	1/4W F						*****
R408	1-249-421-11	CARBON	2.2K	5%	1/4W F						< CONNECTOR >
R409	1-249-429-11	CARBON	10K	5%	1/4W						
R410	1-249-429-11	CARBON	10K	5%	1/4W						
R411	1-247-843-11	CARBON	3.3K	5%	1/4W	CN101	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
R412	1-249-439-11	CARBON	68K	5%	1/4W	CN102	1-564-321-00	PIN, CONNECTOR 2P			
R413	1-249-433-11	CARBON	22K	5%	1/4W	* CN103	1-565-495-11	CONNECTOR, BOARD TO BOARD 4P			
R414	1-249-429-11	CARBON	10K	5%	1/4W						< DIODE >
R415	1-247-843-11	CARBON	3.3K	5%	1/4W	D101	8-719-987-63	DIODE 1N4148M			
R416	1-249-417-11	CARBON	1K	5%	1/4W F						< RELAY >
R417	1-249-429-11	CARBON	10K	5%	1/4W						
R418	1-249-429-11	CARBON	10K	5%	1/4W	△ RY101	1-755-018-11	RELAY			
R419	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R420	1-249-425-11	CARBON	4.7K	5%	1/4W F						< TRANSFORMER >
△ R421	1-215-887-00	METAL OXIDE	150	5%	2W F	△ T101	1-431-145-11	TRANSFORMER, POWER			
△ R422	1-215-887-00	METAL OXIDE	150	5%	2W F						*****
R423	1-249-435-11	CARBON	33K	5%	1/4W						
R424	1-249-427-11	CARBON	6.8K	5%	1/4W F						
R441	1-247-807-31	CARBON	100	5%	1/4W	*	1-659-839-11	POWER CONNECTION BOARD			
R442	1-247-807-31	CARBON	100	5%	1/4W						*****
R443	1-247-807-31	CARBON	100	5%	1/4W						< CONNECTOR >
R444	1-247-807-31	CARBON	100	5%	1/4W						
R800	1-249-417-11	CARBON	1K	5%	1/4W F	* CN613	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P			
R802	1-249-433-11	CARBON	22K	5%	1/4W	* CN614	1-565-480-11	CONNECTOR, BOARD TO BOARD 4P			
R803	1-249-411-11	CARBON	330	5%	1/4W						
R804	1-249-433-11	CARBON	22K	5%	1/4W						
△ R806	1-249-389-11	CARBON	4.7	5%	1/4W F						
△ R807	1-249-393-11	CARBON	10	5%	1/4W F						
R810	1-249-429-11	CARBON	10K	5%	1/4W						

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

TA-VE110

POWER CONNECTION

POWER SWITCH

TRANS

VOLUME

Ref. No.	Part No.	Description			Remarks		Ref. No.	Part No.	Description			Remarks			
		< RESISTOR >					*	1-664-608-11	VOLUME BOARD			*****			
△ R439	1-217-477-00	FUSIBLE	4.7	5%	1W	F			< CAPACITOR >						
△ R440	1-217-477-00	FUSIBLE	4.7	5%	1W	F									

* 1-664-610-11		POWER SWITCH BOARD	*****				C611	1-126-964-11	ELECT	10uF	20%	50V			
		< CONNECTOR >							< CONNECTOR >						
* CN505	1-506-509-11	PIN, CONNECTOR 4P					CN611	1-695-094-11	SOCKET, CONNECTOR 11P						
		< DIODE >					CN612	1-691-768-11	PLUG (MICRO CONNECTOR) 6P						
D547	8-719-812-44	LED TLO124 (STANDBY)							< IC >						
		< RESISTOR >					IC611	8-759-962-08	IC BA6208						
R552	1-249-393-11	CARBON	10	5%	1/4W	F			< RESISTOR >						
		< SWITCH >					R611	1-249-429-11	CARBON	10K	5%	1/4W			
S515	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	*****				R612	1-249-429-11	CARBON	10K	5%	1/4W			

* 1-664-612-11		TRANS BOARD	*****						< VARIABLE RESISTOR >						
		< CONNECTOR >					RV611	1-225-183-11	RES, VAR, CARBON 100KX4 (MASTER VOLUME)	*****					
									< VARIABLE RESISTOR >						
CN152	1-691-768-11	PLUG (MICRO CONNECTOR) 6P													
		< FUSE >					11	1-773-215-11	WIRE (FLAT TYPE) (25 CORE)						
△ F151	1-532-501-51	FUSE (T800mA/250V)					53	1-533-293-11	FUSE HOLDER						
△ F152	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)					△ 60	1-696-571-11	CORD, POWER (UK)						
△ F153	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)					△ 60	1-777-071-11	CORD, POWER (AEP, G, EE)						
		< TRANSFORMER >					△ F151	1-532-501-51	FUSE (T800mA/250V)						
△ T151	1-431-146-11	TRANSFORMER, POWER	*****				△ F152	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)						
							△ F153	1-532-465-51	FUSE, TIME LAG (T3.15A/250V)						
		< TRANSFORMER >					△ T101	1-431-145-11	TRANSFORMER, POWER						
							△ T151	1-431-146-11	TRANSFORMER, POWER	*****					
									ACCESSORIES & PACKING MATERIALS						

							1-475-042-11		ADAPTOR						
							1-475-155-11		REMOTE COMMANDER (RM-UE110)						
							3-858-974-11		MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGUESE/DANISH/FINNISH)						
							3-858-974-21		MANUAL, INSTRUCTION (GERMAN/DUTCH/SWEDISH/ITALIAN)(AEP, G)						
							4-981-643-01		COVER, RATTERY (RM-UE110)	*****					
									HARDWARE LIST						

							#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 TT(B)						
							#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT,						
							#3	7-685-880-09	SCREW +BVTT 4X6 (S)						
							#4	7-685-872-09	SCREW +BVTT 3X8 (S)						

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